

CLAIMS

1. A self-locking carbon adsorbent comprising a carbon nanohorn aggregate provided with one or more openings in the wall part thereof, wherein a substance to be adsorbed passes through the opening in one limited direction from the outside to inside of the carbon nanohorn in isothermal or isobaric adsorption.

2. A self-locking carbon adsorbent according to Claim 1, wherein the substance to be adsorbed is gas which is put in a supercritical state at room temperature.

3. A self-locking carbon adsorbent according to Claim 1 or 2, wherein the substance to be adsorbed is methane gas and the methane gas is allowed to be adsorbed in a quasi-liquid state in the inside of the carbon nanohorn.

4. A self-locking carbon adsorbent according to Claim 3, wherein the methane gas adsorption ability V/V_s (where V represents the volume of gas to be adsorbed and V_s represents the volume of an adsorbent) is 150 or more at 303 K under a pressure of 3.5 MPa.